City of Denton

Solid Waste and Recycling Criteria Manual

December 2021

Solid Waste and Recycling Criteria Manual

1. Overview, Introduction, and Purpose

The purpose of this Criteria Manual is to provide basic criteria and standards for the development and maintenance of solid waste and recycling container enclosures.

2. General Design Standards

A. The design standards and requirements in this Criteria Manual shall apply as set forth in Section 7.2: *Applicability* and Section 7.12 *Solid Waste and Recycling Design Standards* of the Denton Development Code.

B. Nonresidential on-site solid waste and recycling container enclosures shall be located on each platted lot of non-residential property and shall be constructed and maintained by the property owner or developer and made available for use by the City of Denton Solid Waste Department or commercial recycling service provider.

C. Nonresidential on-site solid waste and recycling container enclosures shall be available for the storage of all municipal solid waste and recyclables generated for each platted property. The city reserves the ability to determine which, if any parcels or areas (e.g., Downtown Square, strip centers, multi-family residential, etc.) may be recommended for shared container or other alternative service. Container enclosures shall be of adequate size to contain all solid and liquid wastes and recyclables generated on the property, which may include, but are not limited to, municipal solid waste, recyclables, grease and oils, process by-products and wastes, hazardous waste, medical waste, and any special wastes, contained as necessary to meet disposal standards published by the city.

D. The container enclosures shall be constructed to such capacity prescribed in Section 3.

E. New nonresidential uses of 999 square feet or less will be evaluated by city staff to determine the applicability of constructing an enclosure. Solid Waste and Recycling carts may be appropriate, thereby eliminating the need for construction of an enclosure.

F. The use of cart storage for property converted from a residential to non-residential use can be accommodated if the property converted is a structure of less than 2,500 gross square feet, has a waste generation rate applicable for cart service, and commercial cart service is available in the area.

G. Proposed future building expansion (evaluated at 50% or more of the current square footage) and phased development shall be considered in the site design with regards to sizing, location(s), and access of future solid waste and recyclables container enclosures. Solid waste and recycling areas necessary for future building expansion shall be available for development, but need not be developed, nor container enclosures constructed, until the future building expansion occurs.

H. Containers for solid waste and recycling service shall be screened from the public right-of-way (any designated public street, sidewalk, or alley) and from adjacent property owners.

I. Proper construction of the container enclosures shall be completed prior to final acceptance of the development or property by the City's Solid Waste Department.

J. Container enclosure designs shall be consistent with engineering drawings and specifications, as show in the City of Denton's Standard Details. Refer to the Solid Waste and Recycling Container Enclosure Construction Drawings.

3. Container Enclosure and Storage Space Dimensional Requirements

A. All single container enclosures shall be a minimum inside wall dimensions of 13 feet wide and 10.5 feet deep. Only solid waste and recycling containers are allowed in the enclosures. Other storage containers such as grease and oil receptacles, and other items shall be stored and located in a different enclosure. These enclosures shall be located where they will not impede the service of the solid waste and/or recycling containers.

B. All dual container enclosures shall be a minimum inside wall dimensions of 26 feet wide and 10.5 feet deep. Only solid waste and recycling containers are allowed in the enclosures. Other storage containers such as grease and oil receptacles, and other items shall be stored and located in a different enclosure. These enclosures shall be located where they will not impede the service of the solid waste and/or recycling containers.

C. All roll-off compactor enclosures shall be a minimum inside wall dimensions of 16 feet wide with the depth to be determined by the compactor size selected.

D. Refer to the City of Denton's Standard Details for construction specifications.

E. All developments shall be required to install container enclosures as specified in Table A below.

Table A: Minimum Container Enclosure Requirements

Developing Use		Solid Waste
Multifamily Dwelling	1 – 48 units	2 single enclosures or 1 dual enclosure
	49 – 64 units	1 single enclosure and 1 dual enclosure or 3 single enclosures
	65 – 200 units	4 single enclosures or 2 dual enclosures or 1 roll-off compactor enclosure
General Office	1,000 – 10,000 square feet	1 single enclosure
	10,001 – 25,000 square feet	2 single enclosures or 1 dual enclosure
	25,001 – 50,000 square feet	2 single enclosures or 1 dual enclosure or

Table A: Minimum Container Enclosure Requirements		
Developing Use		**Solid Waste**
	50,001 – 100,000 square feet	1 single enclosure and 1 dual enclosure or 3 single enclosures or 4 single enclosures or 2 dual enclosures or 1 roll-off compactor enclosure
General Commercial, Warehousing, Indoor Recreation	1,000 – 5,000 square feet	1 single enclosure
	5,001 – 15,000 square feet	2 single enclosures or 1 dual enclosure
	15,001 – 50,000 square feet	1 dual enclosure or 2 single enclosures or 3 single enclosures
	50,001 – 100,000 square feet	1 single enclosure and 1 dual enclosure or 3 single enclosures or 2 dual enclosures or 4 single enclosures or 1 roll-off compactor enclosure
Shopping Center, Mixed, Light Manufacturing	1,000 – 2,500 square feet	1 single enclosure
	2,501 – 10,000 square feet	2 single enclosures or 1 dual enclosure
	10,001 – 50,000 square feet	1 single enclosure and 1 dual enclosure or 3 single enclosures
	50,001 – 100,000 square feet	1 single enclosure and 1 dual enclosure or 4 single enclosures or 2 dual enclosures or 1 roll-off compactor enclosure
	100,001 – 200,000 square feet	4 single enclosures or 2 dual enclosures or 2 roll-off compactor enclosures
Restaurant, Bars, Grills. Grocery Stores, Movie Theaters and other food service establishments	1,000 – 2,500 square feet	1 single enclosure
	2,501 – 7,500 square feet	2 single enclosures or 1 dual enclosure
	7,501 – 15,000 square feet	1 single enclosure and 1 dual enclosure or 3 single enclosures or 1 roll-off compactor enclosure
Department Store, Supermarket, Service Station	1,000 – 5,000 square feet	2 single enclosures or 1 dual enclosure
	5.001 – 25,000 square feet	2 single enclosures or 1 dual enclosure or

Table A: Minimum Container Enclosure Requirements		
Developing Use		Solid Waste
	25,001 – 50,000 square feet	1 single enclosure and 1 dual enclosure or 3 single enclosures or 4 single enclosures or 2 dual enclosures
	50,001 – 100,000 square feet	4 single enclosures or 2 dual enclosures or 1 roll-off compactor enclosure or 2 roll-off compactor enclosures

F. Nonresidential uses which are not specifically listed in the above storage space and enclosure requirements, will be reviewed for adequate solid waste and recyclables enclosures based on site-specific information and the following Solid Waste and Recycling Design Factors:

1. Type of business and waste generation potential;
2. Waste generation of similar businesses;
3. Square footage of the development and structures, and the number of floors;
4. Location of the business;
5. Hours of business operation;
6. Business site plan; and
7. Phased development and future use plans.

4. Container Enclosure Design Requirements

A. Materials used for container enclosure construction shall be compatible with the main building architecture and appearance and may include:

1. Concrete Block – Tinted, colored, painted, or with textured facing
2. Concrete – Poured or tilt wall construction
3. Brick - Double brick thickness minimum
4. Stone
5. Metal
6. Wood
7. Vinyl
8. Composite Material
9. Combinations of the above materials

B. Front load enclosures shall have walls constructed to a minimum 6-foot height, or as tall as required to conceal the container. Compactor enclosure walls require construction a minimum of 8 feet in height in order to conceal the compactor and mechanical equipment.

C. Gates shall be required when the interior of the enclosure is visible from the public right-of-way (any designated public street, sidewalk, or alley) and when visible from the lot of adjacent property owners.

D. Personal access side gates are recommended as a feature of all gated enclosures. These doors/gates should be fitted with emergency egress strike bars.

5. Enclosure Access, Placement, Ingress and Egress Requirements

A. Enclosure access requirements shall be in compliance with the requirements of Chapter 469 of the Texas Government Code as amended and the Texas Accessibility Standards as amended.

B. Container enclosures shall not be located in a fire lane, public right-of-way, public utility easements, or sidewalk area.

C. No solid container enclosure shall be located within the required front yard or protrude in front of any buildings along the designated lot frontage.

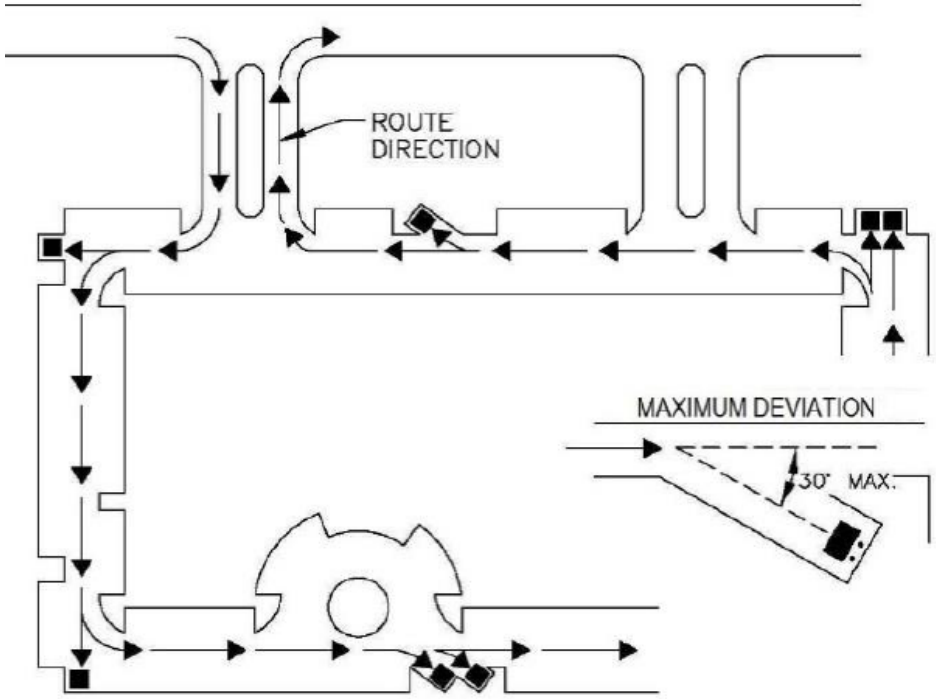
D. The location of container enclosures may not cause the obstruction of traffic for excessive lengths of time while being serviced.

E. The solid service truck shall be on the property owner's property during service operations, if the site design permits.

F. Ingress and egress routes shall be designed to facilitate exiting the property in a forward driving direction for all interstate and state roads, arterial streets, and collector streets with four lanes. See figures and notes for Solid Waste collection routes on the next page.

G. Utility wires and structure overhangs should have a minimum height clearance of 20 feet along the ingress and egress route. No utility wires shall extend over the enclosure approach and service area.

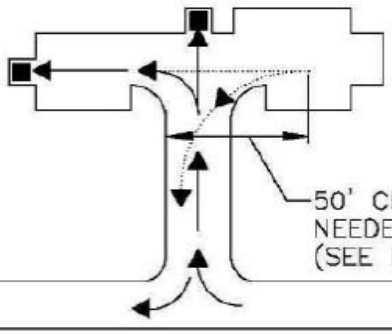
H. Dead end streets, which are planned for extension in future development phases, will have sufficient all weather turn around areas for Class 7 trucks constructed of a suitable road base material.



A TYPICAL SOLID WASTE COLLECTION ROUTE

PLEASE NOTE:
SOLID WASTE VEHICLES WEIGH APPROX. 33 TONS WHEN FULL. DRIVEWAYS MUST BE BUILT TO SUPPORT THIS WEIGHT WITHOUT DAMAGE TO DRIVE.

HAMMER HEAD DRIVE



SAFETY NOTE:
BACKING UP MORE THAN 100' AFTER SERVICE TO A SOLID WASTE BIN IS PROHIBITED. THE 100' IS MEASURED FROM THE BACK OF THE SOLID WASTE COLLECTION VEHICLE. MAKE SURE THE AREA HAS THE PROPER TURNING RADIUS AND ACCESS AREA TO LEAVE SITE. THE VEHICLE IS APPROX. 36' LONG. SOLID WASTE COLLECTION VEHICLES WILL NOT TURN WHILE BACKING.

6. Alleyway Access

An alley (residential or commercial) is a private street designed to provide access to the rear of or side of a lot including solid waste and fire access. All alleys shall have at least two direct access point to public streets and are subject to the block length criteria.

A. Design Factors:

1. Turn Radius
2. Street Widths
3. Horizontal and Vertical Clearances
4. Pavement
5. Multifamily Units

B. Turn Radii Requirements: TxDOT recommends, via AASHTO that the turn radii be a minimum of 30 feet for alley to alley intersections with occasional turning trucks, weekly pick-up. Sufficient for side load residential collection vehicles to navigate alley ways lined with trash and recycle carts on both sides.

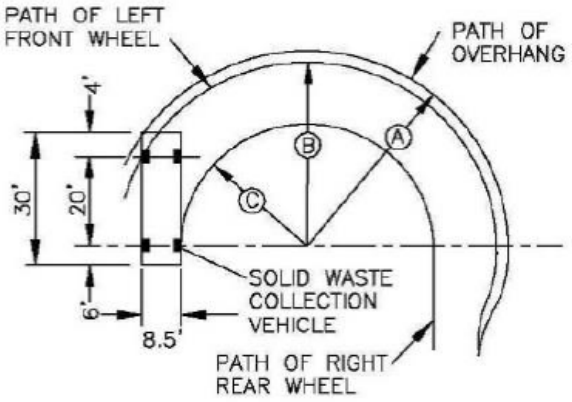
C. Alley Width Requirements: Minimum 20 feet wide for collection operations. As required for vehicles to safely service carts, accommodating truck and space for cart set out.

D. Horizontal and Vertical Clearance Requirements: Balconies, landscaping, or other elements shall not encroach into approved horizontal or vertical clearances for vehicle travel, backing, loading, or other operations along any alley way.

1. The horizontal operating travel clearance is 20 feet
2. The vertical operating travel clearance is 15 feet

E. Pavement Requirements: Build to standards suitable for two 33-ton vehicles traveling down all alley ways twice each service day. Alternatively, responsible party, HOA or POA to provide waiver (recorded with property) for potential damage caused over time by normal hauler operations.

F. Multifamily Unit Requirements: For the purposes of solid waste alley way requirements, any attached residential arrangement of five (5) or more dwelling units per lot will fall under the Commercial Business Category requiring a solid waste and recycling storage facility (container enclosure). See Site Plan Criteria for Municipal Solid Waste & Recyclables Storage & Enclosure Requirements in the City's Standard Details.



Ⓐ 45’ Minimum Turning Radius

Ⓑ 42’ Turning Radius

Ⓒ 30’ Turning Radius